

Abstract**VECTORS, CELLS AND PROCESSES FOR PYRIMIDINE
DEOXYRIBONUCLEOSIDES PRODUCTION**

Novel DNA constructs and host cells comprising the same are disclosed. DNA constructs comprise a transcription unit (e.g. operon) comprising DNA sequences encoding for ribonucleotide reductase and thioredoxin or a uridine kinase gene and/or a dCTP deaminase gene. In preferred embodiments the constructs comprising DNA sequences encoding for ribonucleotide reductase and thioredoxin further comprise DNA sequences encoding for thymidylate synthase and/or transcription units comprising sequences encoding for uridine kinase preferably together with dCTP deaminase. In particularly preferred embodiments, the host cells comprise constructs having all of the above characteristics wherein the host cell displays repressed or no uracil DNA glycosylase activity. This may be achieved by removal of the host cell *ung* gene. Use of host cells in the manufacture of pyrimidine deoxyribonucleotides e.g. thymidine is also disclosed.